

IN THE CLAIMS

Claim 1 (Currently Amended): An SP-C analog having ~~general formula (I)~~

~~F_eG_fIPZZPVHLKR(X_aB)(X_bB)_n(X_cB)_mX_dGALLMGL~~ (SEQ ID NO: 1)

F_eG_fIPSSPVHLKR(X_aB)_n(X_bB)_nX_cBX_dGALLMGL

wherein:

X is an amino acid selected from the group consisting of I, L, and Nle (norleucine);

B is an amino acid selected from the group consisting of K, W, F, I, Y, and Ornithine;

wherein

~~Z is S (Ser) and can be optionally linked via an ester bond with an acyl group~~

~~containing 12-22 carbon atoms;~~

a is an integer from 1 to 19;

b is an integer from 1 to 19;

c is an integer from 1 to 21;

d is an integer from 0 to 20;

e = f = 0 or 1;

n is 0 or 1; and

~~m is 1;~~

~~with the following condition wherein:~~

(X_aB)_n(X_bB)_nX_cBX_d ~~(X_aB)(X_bB)_n(X_cB)_mX_d~~ is a sequence having a maximum of 22

amino acids.

Claim 2 (Previously Presented): An SP-C analog according to claim 1, having
formula (Ia):

FGIPSSPVHLKRX₄BX₄BX₄BXGALLMGL (SEQ ID NO: 2).

Claim 3 (Previously Presented): An SP-C analog according to claim 1, having formula (Ib):

FGIPSSPVHLKRX₅BX₅BX₄GALLMGL (SEQ ID NO: 3).

Claim 4 (Currently Amended): An SP-C analogues according to claim 1, having formula (Ic):

FGIPSSPVHLKRX₄BX₁₁GALLMGL (SEQ ID NO: 4).

Claim 5 (Currently Amended): An SP-C analog according to claim 1, having formula (Id):

~~FGIPSSPVHLKRX₈BX₈GALLMGL (SEQ ID NO: 5).~~

FGIPSSPVHLKRX₈BX₇GALLMGL (SEQ ID NO: 5).

Claim 6 (Previously Presented): An SP-C analog according to claim 1, having formula (Ie):

FGIPSSPVHLKRX₁₁BX₄GALLMGL (SEQ ID NO: 6).

Claim 7 (Currently Amended): An SP-C analog according to claim 1, in which the Ser residues are acylated.

Claim 8 (Currently Amended): An SP-C analog according to claim 1, in which B is Lysine or Phenylalanine and X is ~~Leucine, Isoleucine or Norleucine.~~

Claim 9 (Previously Presented): An SP-C analog according to claim 8, selected from the group consisting of:

SP-C (LKS) FGIPSSPVHLKRLILKLLLLKILLKLGALLMGL (SEQ ID NO: 7);

SP-C (LKS)₁ FGIPSSPVHLKRLILKLLLLIKLLILGALLMGL (SEQ ID NO: 8);

SP-C (LKS)₂ FGIPSSPVHLKRLILKLLLLLILLILGALLMGL (SEQ ID NO: 9);

SP-C (LKS)₃ FGIPSSPVHLKRLILLLLLLKLILLILGALLMGL (SEQ ID NO: 10);

SP-C (LKS)₄ FGIPSSPVHLKRLILLLLLLLIKLLILGALLMGL (SEQ ID NO: 11);

and

SP-C (LFS) FGIPSSPVHLKRLILFLLLLFILLFLGALLMGL (SEQ ID NO: 12).

Claim 10 (Previously Presented): A synthetic surfactant comprising at least one SP-C analog of claim 1 in admixture with at least one lipid and/or phospholipid.

Claim 11 (Previously Presented): A synthetic surfactant according to claim 10, in which said lipids and/or phospholipids comprise DPPG, PG, and/or PA.

Claim 12 (Previously Presented): A synthetic surfactant according to claim 10, further comprising SP-B or an active derivative thereof, or a polymyxin.

Claim 13 (Previously Presented): A synthetic surfactant according to claim 10, in the form of a solution, dispersion, suspension, or a dry powder.

Claims 14-16 (Canceled).

Claim 17 (Currently Amended): The SP-C analogue of claim 1 wherein the $(X_aB)(X_bB)_n(X_cB)_mX_d(X_aB)_n(X_bB)_nX_cBX_d$ sequence has from 10 to 22 amino acids.

Claim 18 (Currently Amended): The SP-C analogue of claim 7, wherein the Ser residues are acylated with palmitoyl groups.

Claim 19 (Previously Presented): A pharmaceutically active synthetic surfactant comprising the SP-C analog of claim 1.

Claim 20 (Withdrawn): A method of treating a surfactant deficiency comprising administering an effective amount of the SP-C analog of claim 1 to a subject in need thereof.

Claim 21 (Previously Presented): A pharmaceutically active synthetic surfactant comprising the surfactant of claim 10, wherein said surfactant comprises polymyxin.

Claim 22 (Previously Presented): A pharmaceutically active synthetic surfactant comprising the surfactant of claim 10, wherein said surfactant comprises polymyxin B.

Claim 23 (Withdrawn): A method of treating surfactant deficiencies or dysfunction, or serious otitis media, comprising administering an effective amount of the surfactant of claim 10 to a subject in need thereof, wherein said surfactant comprises polymyxin.

Claim 24 (Withdrawn): A method of treating a surfactant deficiency or dysfunction, or serious otitis media, comprising administering to a subject in need thereof an effective amount of the surfactant of claim 10 wherein said surfactant comprises polymyxin B.

Claim 25 (Withdrawn): The method of claim 20, wherein said subject has respiratory distress syndrome.

Claim 26 (Withdrawn): The method of claim 23, wherein said subject has respiratory distress syndrome.

Claim 27 (Withdrawn): The method of claim 24, wherein said subject has respiratory distress syndrome.

28 (Currently Amended): The SP-C analog of claim 1, wherein B is selected from the group consisting of K, and F ~~and I~~.

29 (Previously Presented): The SP-C analog of claim 1, wherein X is selected from the group consisting of I and L.

30 (Currently Amended): The SP-C analog of claim 1, wherein B is selected from the group consisting of K, and F ~~and I~~; and X is selected from the group consisting of I and L.

31 (Previously Presented): A pharmaceutically active synthetic surfactant comprising the surfactant of claim 10, wherein said surfactant of claim 10 contains at least one phospholipid selected from the group consisting of DPPC and PG.

32 (Previously Presented): A method of treating a surfactant deficiency or dysfunction or serious otitis media, comprising:

administering to a subject in need thereof an effective amount of the surfactant of claim 10, wherein said surfactant of claim 10 contains at least one phospholipid selected from the group consisting of DPPC and PG.

33 (New): The SP-C analog of claim 1, which does not give rise to self-oligomerization.

34 (New): The SP-C analog of claim 1, which folds like the native peptide and interacts with surfactant lipids.